

ZENAYSHVILI, O.P.; BAKANIDZE, T.A.; GOBECHIYA, B.K.; KAVTARADZE, M.A.

Results of alkopar trials in foci of necatoriasis. Med.paraz.
i paraz.bol. 33 no.3:302-303 My-Je '64.

(MIRA 18:2)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny
imeni Virsaladze Ministerstva zdravookhraneniya Gruzinskoy SSR,
Tbilisi.

ZENAYSHVILI, O.P.; BAKANIDZE, T.A.

Testing dichlorazine in ankylostomiasis, ascariasis and
trichocephaliasis. Med. paraz.i paraz.bol. 34 no.4:481-
482 J1-Ag. '65. (MIRA 18:12)

1. Klinicheskoye otdeleniye Instituta med. parazitologii i
tropicheskey meditsiny imeni S.S.Virsaladze Ministerstva
zdravookhraneniya Gruzinskoy SSR, Tbilisi. Submitted March
23, 1965.

BAKANIN, F.D., agronom (Krasnoyarskiy kray)

Chemical weed control on fields of Krasnoyarsk Territory. Zashch.
rast.ot vred. i bol. 3 no.6:28 N-D '58. (MIRA 11:12)

1. Mezhrayonnyy punkt sluzhby ucheta i prognozov.
(Krasnoyarsk Territory--Herbicides)

BAKANTIN, G.V.

Results of laboratory investigations of the forebay of the Gissar
intake works. Trudy Otd. energ. AN Tadzh. SSR 1:91-112 '60.

(MIFA 14:2)

(Dyushambinka River—Water resources development)

BAKANIN, V.P.

14(10): 3(5) PHASE I BOOK EXPLOITATION SOV/2843

Sovetskoye po racional'nyy sposobam fundamentostroyeniya na tekhnicheskikh gruntakh

Tretyy... (Translations of the Conference on Efficient Methods of Building Foundations on Permafrost Soils). Moscow, Gosstroyizdat, 1959. 131 p. Errata slip inserted. 1,200 copies printed.

Ed. of Publishing House: M. M. Borshchavskaya; Tech. Ed.: Ye. L. Tsukina.

PURPOSE: This book is intended for construction engineers, industrial planners and builders.

COVERAGE: This book contains reports originally read in Yerkuta in 1958 on experience gained in planning and building foundations in permafrost regions of the USSR. The reports were prepared for publication in the NIIOGP (Scientific Research Institute for the Study of Foundations and Underground Structures). The references are given.

Baklanov, V. P. Construction Conditions and the Exploitation of Mining Enterprises in the Fedora Coal Basin

Zhil'tsov, A. I. Construction of Industrial Plants on Permanently Frozen Ground With Subsequent Settling

Martin, K. Z. Designing Pile Foundations Under Permafrost Conditions

Pechintsev, A. M. Special Characteristics of Foundation Building in the City of Igarka

Reizler, S. A., and V. M. Yodolovskiy. Methods of Restoring the Deformed Principal Buildings in Yerkuta

Yegorov, V. M. Analysis of Work and Computing the Reinforced Concrete Pile Foundations and Frame Works, Taking Into Account Uneven Settling of the Bearing Ground

Yegorov, V. M., and V. M. Sokolova. New Data on Frost Heaving of Foundations

Shchelokov, K. K. Decreasing the Depth of Foundation Laying by Keeping the Ground in a Frozen State

Kraschenko, I. K. Frost Heaving of Ground and Foundations (discussion)

Chukotillo, A. M. Non-Soviet Experience in Building Foundations on Permanently Frozen Ground

Zarkhaya, G. V. Maximum Thawing of Perennially Frozen Ground Under Heated Buildings (two-dimensional solution)

Bonko, I. V. Settling of the Foundations of Industrial Structures of the Yerkutskiy Combine

AVAILABLE: Library of Congress

Card 4/4

1-18-60

GORYAYEV, M.I.; BAKANINA, N.I.

Study of the essential oil from *Artemisia sublessingiana* (Kell) H.
Krasch. Izv. AN Kazakh SSR Ser. khim. no. 3:104-106 '49. (MLRA 9:8)
(Wormwood) (Essences and essential oils)

L'VOV, V.M., dotsent; NOVOKRESHCHENOV; TUROVSKIY; BALABASHIN; ZIMINA; VEBER;
KONOSHENKO; BAKANOV, A.

Improving the qualifications of veterinarians. Veterinariia 41
no.8:96-99 Ag '64. (MIRA 18.4)

1. Leningradskiy veterinarnyy institut (for L'vov).

BAKANOV, A.A.

The BU-1A complex drilling unit. Biul.tekh.-ekon.inform. no.10:9-
11 '61. (MIRA 14:10)

(Boring machinery)

BAKANOV, A.A.

Equipment for diamond drilling and prospects of its development.
Biul.tekh.-ekon.inform. no.1:9-12 '62. (MIRA 15:2)
(Boring machinery)

BAKANOV, A. I.

Snegobor'ba na okološke. [Snow removal in a zone]. Moskva, Transzheldorizdat, 1944.
33 p. illus., diagrs.

DLC: TF542.B3

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress
Reference Department, Washington, 1952, Unclassified.

BAKALOV, A. I.

How to lengthen the life of cross-ties, rails and splittings. Moskva, Gos. transp. zheleznodor. izd-vo, 1944. 34 p. (V pomoshch' molodym zheleznodorozhnikam-puteitsam) (48-13146)

TF550.B3

BAKANDV, Andrey Ivanovich; ZHERESBIN, M.I., inzhener, redaktor; KANDYKIN,
A. Ye., tekhnicheskiiy redaktor.

[Safety measures for railroad track workers] Tekhnika bezopasnosti
pri proizvodstve putevykh rabot. Izd-vo 4-oe ispr. Moskva, Gos.
transp. shel-dor. izd-vo, 1955. 190 p. (MLRA 8:11)
(Railroads--Safety measures)

BAKANOV, A.I.

Change the shape of books used for checking track. Put' 1 put.khoz.
no.11:30 N '58. (MIRA 11:12)

1. Zamestitel' nachal'nika distantsei puti, stantsiya Ryazhsk I Moskov-
sko-Ryazanskoy dorogi.

(Railroads--Track--Handbooks, manuals, etc.)

BAKANOV, A.I.

Urgent problems in the mechanization of operations and enforcement
of safety measures on tracks. Zhel.dor.transp. 42 no.11:35-37 N '60.
(MIRA 3:11)

1. Zamestitel' nachal'nika distantssii puti, g.Ryazhsk.
(Railroads--Maintenance and repair)
(Railroads--Safety measures)

BAKANOV, A.I.

Mechanize the inspection of track conditions. Put' i put.khoz.
6 no.5:14 '62. (MIRA 15:4)

1. Zamestitel' nachal'nika distantzii puti, st. Ryazhsk-I,
Moskovskoy dorogi.
(Railroads--Maintenance and repair) (Railroads--Cars)

BAKANOV, A.I., inzh.

Providing for the passage of spring flood waters. Put' i put.khoz. 7
no.4:2 '63. (MIRA 16:3)

1. Ryazhskaya distantiya puti Moskovskoy doregi.
(Railroads--Maintenance and repair)

BAKANOV, A.; RAL'KOV, V.

Small-size moistening apparatus with automatic feeding of water.
Muk.-elev. prom. 29 no.12:20-21 D '63. (MIRA 17:3)

1. Nachal'nik razmol'nogo tsekha Tul'skogo mel'nichnogo kombinata
No.1 (for Bakanov). 2. Zamestitel' nachal'nika razmol'nogo tsekha
Tul'skogo mel'hichnogo kombinata No.1 (for Ral'kov).

BAKANOV, A.I., inzh.

Two simple proposals. Put' i put. khoz. 9 no.12:13 '65.
(MIRA 19:1)

1. Stantsiya Ryazhsk I, Moskovskoy dorogi.

BAKANOV, D. G.

S/701/61/000/000/001/005
B124/B138

18.8400
AUTHORS:

Sukhenko, K. A., Moiseyeva, K. A., Tishin, I. G. Bakanov, D. G., Metelina, L. D., Al'tman, T. D.

TITLE:

Photoelectric methods of analysis and their application to the quality control of materials

SOURCE:

Fotoelektricheskiye metody spektral'nogo analiza; sbornik statey. Moscow, Oborongiz, 1961, p. 5 - 19

TEXT: The photoelectric steelometer FES-1 (FES-1) and the multichannel quantometer DFS-10 (DFS-10) are used to determine elements in various ferrous and non-ferrous metals and alloys. The FES-1 provides higher accuracy than that obtained with photographic methods. With the 36-channel DFS-10 of 11 elements can be determined at once; the optical scheme of the apparatus is shown in Fig. 2. The device M-194 (M-194) is used to check the position of one slot in each section using arc ignition between a pure metal and the stationary upper electrode. The guide to which the exit slots are attached is divided into four sections according to certain wavebands of the spectrum. Fluctuations in temperature are eliminated by an air-conditioning system.
Card 1/83

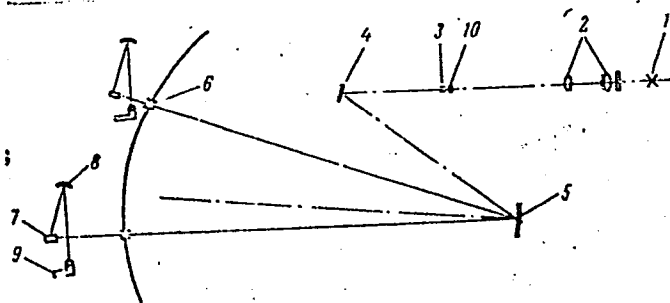
34066

S/701/61/000/000/001/005
B124/B138

Photoelectric methods of ...

tioning device. Table 1 gives the analytical lines recommended for the alloys and steels examined. For best accuracy conditions of operating, type of arc, and electrodes must be adjusted according to the material being analyzed. The conditions of analysis for the alloys examined are shown in Table 7. The determination of 11 elements takes 6 to 8 minutes with the automatic device. There are 7 figures, 7 tables, and 7 Soviet references. ✓

Fig. 2. Optical scheme of the quantometer. (1) light source; (2) screen condenser; (3) inlet slit; (4) and (7) plane mirrors; (5) grating; (6) exit slit; (8) concave mirror; (9) photoelectric cell; (10) lens.



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B124/B138

Photoelectric methods of ...

Table 1. Analytical lines and concentration ranges of the elements for the analysis of alloys and steels with the quantometer DFS-10.
 Legend: (A) Element; (B) Wavelength; (C) Width of exit slot, mm; (D) Analytical lines and concentration ranges, %; (E) Aluminum alloys; (F) Magnesium alloys; (G) Nickel alloys; (H) Steels; (J) Titanium alloys; (K) Chromium; (L) Copper; (M) Magnesium; (N) Zinc; (P) Iron; (Q) Vanadium; (R) Lead; (S) Tungsten; (T) Aluminum; (U) Silicon; (V) Nickel; (W) Titanium; (X) Molybdenum; (Y) Manganese; (Z) Boron; (Zh) Reference line; (I) Note. The angle between the calibration curve and the chromium line 4254 is low when high concentrations are determined.

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 3

S/701/61/000/000/003/005
B124/B138

AUTHOR: Bakanov, D. G.

TITLE: Analysis of titanium alloys with the quantometer DFS-10
(DFS-10)

SOURCE: Fotoelektricheskiye metody spektral'nogo analiza; sbornik
statey. Moscow, Oborongiz, 1961, p. 66 - 69

TEXT: The titanium alloys BT3 (VT3), BT4 (VT4), BT5 (VT5), and BT6 (VT6) were analyzed with the quantometer DFS-10 using the analytical lines given in Table 1. Optimum slope of the calibration curves was obtained with an a-c arc for VT3, VT4, and VT5, and with a single-pole arc (sample "+") for VT6. Current intensity was 3 a, voltage 220 v, ignition phase 90°, arc gap 1.5 mm, burning time 7 seconds, exposure 30 seconds, and a hemispherical stationary carbon electrode was used. With VT3, VT4, and VT5, reproducibility is $\pm 3.8\%$ for Al, $\pm 3.3\%$ for Cr, $\pm 3.1\%$ for Mn, and $\pm 11.7\%$ for Fe. The source of light was the a-c arc of generator ГЭУ-1 (GEU-1). Using the same titanium alloys good agreement is obtained between the results of photoelectric methods using the DFS-10 and those from a photo-Card 1/2

Analysis of titanium ...

S/701/61/000/000/003/005
B124/B138

electric steelometer, photographic or chemical methods. On the basis of the present work a photoelectric method is suggested for determination of Al, Cr, Mn, Si, Fe, and V with the quantometer DFS-10 in the Ti alloys given above. With this method 5 - 6 elements in a sample can be determined in 4-5 minutes with reasonable accuracy. T. D. Al'tman is mentioned. There are 2 figures and 5 tables.

Table 1. Wavelengths in Å. Legend: (A) Titanium; (B) Aluminum; (C) Chromium; (D) Iron; (E) Manganese; (F) Vanadium; (G) Reference line.

(A) Титан	Алюминий (B)	Хром (C)	Железо (D)	Марганец (E)	Ванадий (F) - 4
(C) Линия срав- нения 3319,03	— 3961,52	5345,80 4254,34	— 4383,54	— 2593,72	— 4111,78

Card 2/2

39660

S/137/62/000/007/072/072
A160/A101

181225

AUTHOR: Bakanov, D. G.

TITLE: An analysis of titanium alloys with the help of a ДФС-10 (DFS-10) quantometer

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 6, abstract 7K29
(In collection: "Fotoelektr. metody spektr. analiza". Moscow, Oborongiz, 1961, 66 - 69)

TEXT: Investigated was the possibility of analyzing BT 3-4-5 (VT3-4-5) and VT6 alloys with the help of a DFS-10 apparatus. A better slope of the calibration graphs was obtained for the VT3-4-5 alloy by using alternating-current arc, and for the VT6 alloy a polar arc. The discharge conditions are in both cases the same: the current is 3 amperes, the tension - 220 volts, the phase of ignition - 90°, the constant electrode is a carbon ground in the form of a hemisphere, the arc gap is 1.5 mm, the annealing time - 7 sec, and the exposure - 30 sec. The method permits determination of 5 - 6 elements of one sample in the course of 4 - 5 min.

[Abstracter's note: Complete translation]

L. Vorob'yeva

Card 1/1

BAKANOV, D. S.

"Practice in Intrafactory Accounting," Ryb. Khoz., 28, No.7, 1952

BAKANOV, G.Ye.

Accelerating the second mining of coal in thick steeply
pitching deposits mined by the room and pillar system with-
out pillar extraction. Izv.TPI 93:8-16 '58.
(MIRA 13:5)

(Coal mines and mining)

BAKANOV, G. Ye, dotsent.

Selecting the adit direction in the opening of ore deposits.
Izv.vys.ucheb.zav.; gor.zhur. no.8:3-12 '59. (MIRA 13:5)

1. Tomskiy ordena Trudovogo Krasnogo znameni politekhnicheskoy
institut imeni S.M. Kirova. Rekomendovana kafedroy rudnykh
mestorozhdeniy.
(Mining engineering)

15-57-10-14838

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 247 (USSR)

AUTHOR: Bakanov, G. Ye.

TITLE: Selecting the Site of a Mine Hoist Shaft, Considering
the Effect of Loss of Mineral Resources by Preserving
Ore-Pillars When Opening up a Deposit by Crosscut Levels
(O vybore mesta zalozheniya pod "yemnykh stvolov shakht s
uchetom vliyaniya poter' poleznykh iskopayemykh v
okhrannykh tselikakh pri vskrytii mestorozhdeniy
etazhnymi kvershlagami)

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1956, Vol 84, pp 3-16

ABSTRACT: The proper selection of a site for the hoist shaft in a
mine has considerable significance for the national
economy. In a number of cases, the placing of the hoist
shaft in a mine essentially influenced the expense of
opening up and working the deposit, the safety of the
mine work, the efficiency of the operation, and the
thoroughness of removing the ore during its extraction.

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15-57-10-14838

Selecting the Site of a Mine Hoist Shaft (Cont.)

The first study of this problem is found in the paper of L. D. Shevyakov in the journal "Inzhenernyy rabotnik" for 1924. In this paper the author explained and substantiated the method of determining the site of a shaft transverse to the strike of the formations, a method proposed in 1917 by the mining engineer R. A. Seletskiy. According to this method, the site of the vertical shaft, with levels of crosscutting, was determined from conditions of minimum work in ore haulage along the crosscuts. L. D. Shevyakov proposed, for the discovery of the "most advantageous" site of the shaft, the use of the rule: "...the shaft should be so disposed that it intersects a crosscut in a place such that the loads added to all the other loads situated on its left make a total greater than the total of all the loads on its right, and being added to all the other loads on the right, give a total greater than the total of the loads on its left." The method of L. D. Shevyakov considered only the volume of transported load from the principal crosscuts. The length of the crosscuts, the transport of waste for ventilation of the crosscut, the transport of material used in the ventilation system, and the loss of

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15-57-10-14838

Selecting the Site of a Mine Hoist Shaft (Cont.)

ore are not considered in the method just described. In 1926-28, P. K. Sobolevskiy and P. I. Panovyy worked out a graphical method of locating a shaft according to which, as in the Shevyakov-Seletskiy method, the site was chosen in relation to the minimum work in getting loads to the shaft. The chief inadequacy limiting the application of the above-mentioned methods is that the site of the shaft is chosen merely on the basis of load haulage from the principal crosscuts. A more complete method of locating a shaft for working a deposit by thorough or storied crosscuts was proposed by A. M. Tseytlin and A. Ye. Lokshin. To determine the shaft site by this method, consideration is given to the expense for ore transport, for extraction of waste rock, for waste packing for hauling in the hoist shaft, for making the crosscut, for mine ventilation for transporting workers, materials, and equipment to the crosscut. To do this the authors proposed that the following be considered at the points of intersections of the shaft and the crosscuts: the ventilation in the mine, transportation within and through the crosscuts, and the expense per meter, for haulage of load, for driving the crosscut, for ventilation, etc. The merit of Card 3/5

15-57-10-14838

.. Selecting the Site of a Mine Hoist Shaft (Cont.)

the Tseytlin-Lokshin method is its simplicity, its graphic form, and its satisfactory precision. This method considers all the fundamental factors concerning the expense associated with shaft site (as well as the relief of the area and the transport of ore or coal to the surface). However, none of these methods considers the effect of the choice of shaft site on the loss of mineral values. On the other hand, the shaft site is selected, in the majority of cases by the methods used, in the place of the greatest accumulation of valuable minerals, and this selection proves to be the most unsuitable because of the great loss of valuable minerals in the near-shaft pillars. The author of the present paper proposes a method which provides for the construction of a graph showing the change in expense with different shaft sites and a graph of the economic detriment from loss of minerals in protective pillars at different hoist-shaft sites. The combination of these two graphs forms a diagram showing the degree of economic value at different points where the shaft may be located. The construction of such a diagram may easily indicate a shaft site which will be the most suitable in all relations. The method proposed in this paper, in the opinion of the

Card 4/5

15-57-10-14838

Selecting the Site of a Mine Hoist Shaft (Cont.)

author, is sufficiently simple, graphic, and accurate. Graphs are shown and a bibliography is included with seven references.

L. B. Prozorov

Card 5/5

BAKANOV, G.Ye.

BAKANOV, G.Ye.

Some mining indices for main shaft areas of the Prokop'evsk mines
in Kuznetsk Basin. Izv. vost. fil. AN SSSR no.12:83-86 '57.
(MIRA 11:1)

1. Tomskiy politekhnicheskii institut.
(Prokop'yevsk--Coal mines and mining)

BAKANOV, G.Ye., dots.

Determining block lengths in mining steep dipping ore veins and
small and medium deposits. Izv. vys. ucheb. zav.; gor. zhur. no.1:
33-37 '58. (MIRA 11:5)

1. Tomskiy politekhnicheskii institut.
(Mining engineering)

BELOUS, N.Kh., st. nauchn. sotr.; KAZANSKIY, Yu.P.; VDOVIN, V.V.;
 KLYAROVSKIY, V.M.; KUZNETSOV, V.P.; NIKOLAYEVA, I.V.;
 NOVOZHILOV, V.I.; SENDERZON, E.M.; AKAYEV, M.S.; BABIN,
 A.A.; BERDNIKOV, A.P.; GORYUKHIN, Ye.Ya.; NAGORSKIY, M.P.;
 PIVEN', N.M.; BAKANOV, G.Ye.; GEBLER, I.V.; SMOLYANINOV,
 N.M.; SMOLYANINOVA, S.I.; YUSHIN, V.I.; D'YAKONOVA, N.D.;
 REZAPOV, N.M.; KASHTANOV, V.A.; GOL'BERT, A.V.; SIDOROV,
 A.P.; GARMASH, A.A.; BYKOV, M.S.; BORODIN, L.V.; RYCHKOV,
 L.F.; KUCHIN, M.I.; SHAKHOV, F.N., glav. red.; SHPAKOVSKAYA,
 L.I., red.

[West Siberian iron ore basin] Zapadno-Sibirskii zhelezorud-
 nyi bassein. Novosibirsk, Red.-izd. otdel Sibirskogo otd-
 nia AN SSSR, 1964. 447 p. (MIRA 17:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geo-
 logii i geofiziki. 2. Institut geologii i geofiziki Sibirskogo
 otdeleniya AN SSSR (for Belous, Kazanskiy, Vdovin, Klyarovskiy,
 Kuznetsov, Nikolayeva, Novozhilov, Senderzon). 3. Institut
 gornogo dela (for Akayev). 4. Novosibirskoye geologicheskoye
 upravleniye Ministerstva geologii i okhrany neдр SSSR (for
 Babin, Berdnikov, Goryukhin, Nagorskiy, Piven').

(Continued on next card)

BELOUS, N.Kh.---(continued). Card 2.

Tomskiy politekhnicheskii institut (for Bakanov, Gebler, Smolyaninov, Smolyaninova). 5. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya (for Yushin, Di'yakonova, Rezapov, Kashtanov, Gol'bert). 6. Institut ekonomiki sel'skogo khozyaystva (for Garmash). 7. Sibirskiy metallurgicheskii institut (for Bykov, Borodin, Rychkov). 8. Tomskiy inzhenerno-stroitel'nyy institut (for Kuchin). 9. Chlen-korrespondent AN SSSR (for Shakhov).

BAKANOV, I.P., inzhener.

Checking the specific resistivity to movement of electric trains.
Prom. energ. 12 no.4:10-12 Ap '57. (MLRA 10:5)

1. Energosbyt Sverdlovenergo.
(Electric railroads)

BAKANOV, I.P.

Interfactory classes on exchange of experience in the saving of
electric power. Prom. energ. 15 no.9:11 S '60. (MIRA 13:10)
(Electric power)

BAKANOV, I.P.

Interfactory study group on the saving of electric power.
Prom.energ. 18 no.4:43-44 Ap '63. (MIRA 16:4)

1. Trest po sbytu energoproduktsii Sverdlovenergo.
(Electric power)

BAKANOV, I.P., inzh.

Standards for the expenditure of electric power should be set
up in a proper way. Prom. energ. 18 no.5:6-8 My '63.

(MIRA 16:6)

(Electric power)

BAKANOV, I.P., inzh.

Efficient use of electric energy in electrified transport.
Prom. energ. 20 no.7:5-9 J1 '65.

(MIRA 18:12)

BAKANOV, K.D., polkovnik

In the interests of a thorough mastery of technic. Vest.
protivovozd. sbor. no.8:11-13 Ag '61. (MIRA 14:8)
(Antiaircraft artillery)

Bakanov, K.F.

SNAGOVSKIY, Ye.S., kandidat tekhnicheskikh nauk; BAKANOV, K.F., inzhener

Interlocking the operation of partial ventilation fans with that
of other mine machinery in the stops. Nauch.rab. VUGI no.11:99-
109 '54. (MLRA 8:11)

(Electricity in mining) (Mine ventilation)

SNAGOVSKIY, Yevgeniy Stefanovich, kand.tekhn.nauk; BAKANOV, Konstantin
Fedorovich, inzh.; GERCHIKOV, Ioel' Solomonovich, kand.tekhn.
nauk; PISAREV, Andrey L'vovich, inzh.; POPOV, Igor' Aleksandrovich,
kand.tekhn.nauk; MIRSKEYA, V.V., red.izd-va; LOMILINA, L.N.,
tekhn.red.; KONDRAT'YEVA, M.A., tekhn.red.

[Automatization in underground transportation] Avtomatizatsia na
podzemnom transporte. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
gornomu delu, 1960. 276 p. (MIRA 13:12)
(Mine haulage) (Automatic control)

BAKANOV, M.

Analiz khoziaistvennoi deiatel'nosti predpriatii ☒ Study of management procedure
in an enterprise ☒ Moskva, Gosfinizdat, 1952. 335 p.

SO: Monthly List of Russian Accessions. Vol. 6 No. 9 December 1953

BAKANOV, M., PROKOF'YEV, P.

Retail Trade - Accounting

Organizing departmental accounting in stores. Bukhg. uchet. 11 no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

BAKANOV, M.

Economic nature of commodity circulation costs in the U.S.S.R.
Sov. torg. no.4:16-23 Ap '57. (MLRA 10:4)
(Marketing--Costs)

BAKANOV, Mikhail Ivanovich; ORLOV, Ya.L., red.; SOKOLOVA, N.N., tekhn. red.

[Drive for efficiency in goods exchange in the U.S.S.R.] Bor'ba za ekonomichnost' tovarnogo obrashchenia v SSSR. Moskva, Gos. izd-vo
torg. lit-ry, 1958. 51 p. (MIRA 11:7)

(Commerce)

SUMTSOV, Anatoliy Ivanovich; BAKANOV, M.I., prof., red.; SIMONOV, A.,
red.izd-va; LEBEDEV, A., tekhn.red.

[Course in the theory of accounting] Kurs teorii bukhgalterskogo
ucheta. Pod red. M.I. Bakanova. Moskva, Gosfinizdat, 1958.
315 p.

(Accounting)

(MIRA 12:2)

BAKANCV, Mikhail Ivanovich, prof., doktor ekonom.nauk; LYUDSKOV, B.P.,
red.; GUROVA, O.A., tekhn.red.

[Marketing costs in the U.S.S.R.] Izderzhki tovarnogo obrashche-
niia v SSSR. Moskva, Gos.izd-vo tog.lit-ry, 1959. 335 p.
(MIRA 13:7)

(Marketing--Costs)

BAKANOV, M.I., prof.; TATUR, S.K., prof.; KOPNYAYEV, V.P.; MASSARYGIN,
F.S.; SHEREMET, A.D.; TIMOFEEV, S.P.; NEDELIN, S.I.; KONDRAT'YEVA,
A., red.; TELEGINA, T., tekhn.red.

[Course in the analysis of administrative operations] Kurs analiza
khoziaistvennoi deiatel'nosti. Moskva, Gosfinizdat, 1959. 480 p.
(MIRA 13:4)

(Industrial management)

BAKANOV, M.I., doktor ekonom. nauk, prof.; KAPELYUSH, S.M., kand. ekonom. nauk, dotsent; KASHAYEV, A.N., kand. ekonom. nauk, dotsent; GOFMAN, G.A., kand. ekonom. nauk; TATSIY, G.M., kand. ekonom. nauk, dotsent; KAPLAN, A.I., kand. ekonom. nauk, dotsent; STARCHAKOVA, I.I., red.; TERYUSHIN, M.I., tekhn. red.

[Accounting principles in commerce] Osnovy bukhgalterskogo ucheta v
torgovle. Moskva, Gos. izd-vo tog. lit-ry, 1961. 376 p.

(MIRA 14:10)

1. Kafedra ucheta i statistiki Zaochnogo instituta sovetskoy trgovli
(for Bakanov, Kapelyush, Kashayev, Gofman, Tatsiy, Kaplan).

(Russia—Commerce—Accounting)

KHOKHLOV, P.I.; BAKANOV, M.I., kand.tekhn.nauk

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(MIRA 18:1)

1. Gosudarstvennyy trest Lenskoy zolotodobyvayushchey promyshlennosti (for Khokhlov). 2. Irkutskiy finansovo-ekonomicheskii institut (for Bakanov).

BAKANOV, M.V.

Rule for determining the density angle of cord threads in casings and expansion width of tire-building drum. Kauch; i rez. 20 no. 11:45-48 N, '61. (MIRA 15:1)

1. Krasnoyarskiy shinnyy zavod.
(Automobiles—Tires) (Tire fabrics—Testing)

BAKANOV, N.

State Bank's business and people. Den. i kred. 20 no. 8-49-50
Ag '62. (MIRA 15:9)

1. Glavnyy bukhgalter Ivanovskoy oblastnoy kontory Gosbanka.
(Teykovo—Banks and banking—Accounting)

1ST AND 2ND CODES																										3RD AND 4TH CODES																									
Utilization of cereal by-products for the production of glucose and maltose sirups. N. A. Bakanov. <i>Pishchereys</i> /rem. 1943, No. 1/2, 41-44. Methods are described for the production of glucose and maltose sirups from by-products of cereal industries like the bread, macaroni, and confectionery industries. Organoleptic, chem., and phys. properties of the products produced are given, and suggestions for use of the products are made. S. G.																																																			
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION																																																			

SIFYAGIN, A. S.; A. A. MILYUTIN; N. A. BAKANOV; B. K. BYCHKOV; S. F. KRAVCHENKO;
B. A. VEKSLER; V. I. LUKOYANOV; EE.

Tekhnologiya Krakhamlopatochnogo Proizvodstva. (Technology of Starch-
Syrup Production). Moskva, Pishchepromizdat, 1950.

h23 p. Illus., Tables, Diags.

At Head of Title: A. S. Sipyagin, etc.

"Literatura": p. L20-(L21)

So: N/5
722.31
.S6

BAKANOV, N.A.; BURMAN, M.Ye., inshener; SOLNTSEVA, N.V.; PRITYKINA, L.A.,
redaktor; MEDVEDEVA, L.A., tekhnicheskiy redaktor

[Reference manual for starch and syrup production] Spravochnik po
krakhmalo-patochnomu proizvodstvu. Pod red. M.E.Burmana. Moskva,
Pishchepromizdat, 1952. 376 p. (MIRA 7:9)
(Starch industry) (Syrups)

BAKANOV, N.A., kandidat tekhnicheskikh nauk; BURMAN, M.Ye., inzhener,
retsensent; PRITYKINA, L.A., redaktor; KISINA, Ye.I., tekhnicheskii redaktor,

[Production of sago] Proizvodstvo sago. Moskva, Pishcheprom-
izdat, 1955. 33 p.
(Sago) (Starch) (MLRA 9:5)

13.11.1955 A 1

✓ Physicochemical constants of intermediates and products
of corn-starch production. N. A. Bakanov. *Trudy Tsentral.
Nauch.-Issledovatel. Inst. Khimicheskoi Prom.* 1953,
No. 1, 26-8; *Referat. Zhur., Khim.* 1955, No. 4887. — Phys.-
chem. consts. at various stages of corn-starch production
were detd. These consts. are needed for calcg. production
conditions and app. needed.

Chem 1

M. Hosh

BAKANOV, N.A., kandidat tekhnicheskikh nauk.

Paziruk-Chudinov potato processing installations. Trudy TSNIIEPP
no.2:47-61 '55. (MIRA 10:1)
(Potatoes) (Starch)

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tekhn.red.

[Technology and control of starch and molasses production] Tekhno-
logiia i tekhnokhimicheskii kontrol' krakhmalo-patochnogo proizvod-
stva. Pod red. M.E.Burmana. Moskva, Pishchepromizdat, 1957. 402 p.
(Starch) (Molasses) (MIRA 11:2)

MULLER, Zdenek; BAKANOV, N.A. [translator]; BAKANOV, V.N., red.

[Antibiotics in the feeding of farm animals] Antibiotiki
v kormlenii sel'skokhoziaistvennykh zhivotnykh. Pod red.
V.N.Bakanova. Moskva, Izd-vo inostr.lit-ry, 1958. 184 p.
Translated from the Czech. (MIRA 14:1)
(Antibiotics) (Feeding)

BAKANOV, N.A.

Results of the industrial testing of new types of machines used
in potato starch production. Sakh.prom. 33 no.7:69-71
Jl '59. (MIRA 12:11)
(Czechoslovakia--Starch industry--Equipment and supplies)

BAKANOV, N.A.

Improvement of settling centrifugals equipped with screw
conveyers. Sakh.prom. 34 no.1:60-62 Ja '60.
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(Centrifuges)

BAKANOV, N.A.

Use and improvement of the operation of large-capacity centrifugals
in the cornstarch industry (from "Stärke," no.12, 1959). Sakh.
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(Centrifuges)

BAKANOV, N.A.

Modern separators in the starch industry. Sakh.prom. 34 no.7:65-
69 J1 '60. (MIRA 13:7)

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(Separators (Machines))

BAKANOV, N.A.

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(Krefeld--Constarch)

BAKANOV, N.A.

New continuous method for the production of dextrin (from "Die
Stärke," no.12, 1960). Sakh. prom. 35 no. 5:66-68 My '61.
(MIRA 14:5)
(Dextrins)

BAKANOV, Nikolay Alekseyevich; BURMAN, Mark Yefimovich; SOLNTSEVA,
Nina Vasil'yevna; BYCHKOV, B.K., inzh., retsenzent;
USPENSKIY, I.Ye., inzh., retsenzent; SHAMBORANT, G.G., spets.
red.; KRUGLOVA, G.I., red.; SOKOLOVA, I.A., tekhn. red.

[Handbook on starch and molasses production] Spravochnik po
krakhmalo-patochnomu proizvodstvu. 2 izd. perer. i dop. Pod
red. M.E.Burmana. Moskva, Pishchepromizdat, 1962. 478 p.
(MIRA 15:11)

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BAKANOV, N.I., inzh.; RACHINSKIY, M.N., inzh.; RUMYANTSEV, V.P., inzh.

Why there was a delay in the mastering of the production lines
in Iskitim. Stroil. mat. ll no.4:7-8 Ap '65. (MIRA 18:6)

SHILKIN, P.M.; ZEL'VYANSKIY, Ya.A.; SIBAROV, Yu.G.; KUSTOV, V.M.;
TSYKHMAN, A.I.; KUVSHINOV, M.I.; SHIPAREV, Yu.A.; TYURNIN,
G.A.; AVSTREYKH, L.D.; BAKANOV, N.N.; KHITROV, P.A., tekhn.
red.

[Safety engineering regulations for operating the contact
networks of d.c. electrified railroads]Pravila tekhniki bez-
opasnosti pri ekspluatatsii kontaktnoi seti postoiannogo to-
ka elektrifitsirovannykh zheleznnykh dorog. Moskva, 1962.
128 p. (MIRA 15:7)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye elektrifi-
katsii i energeticheskogo khozyaystva. 2. Zamestitel' na-
chal'nika tekhnicheskogo otdela TsE Ministerstva putey
soobshcheniya (for Shilkin). 3. Tekhnicheskii otdel TsE Mi-
nisterstva putey soobshcheniya (for Zel'vyanskiy). 4. TSen-
tral'nyy komitet profsoyuza rabochikh zheleznodorozhnogo
transporta (for Sibarov). 5. Nauchno-tekhnicheskii sovet Mi-
nisterstva putey soobshcheniya (for Kustov). 6. Sluzhba
elektrifikatsii i energeticheskogo khozyaystva Odesskoy zhe-
leznoy dorogi (for Tsykman). 7. ECh Yuzhno-Ural'skoy zeleznoy
dorogi (for Kuvshinov). 8. ECh Moskovskoy zheleznoy dorogi
(for Segala, Shiparev, Tyurnin). 9. EChK Oktyabr'skoy zhelez-
noy dorogi (for Avstreykh). EChK Moskovskoy zheleznoy dorogi
(for Bakanov). (Electric railroads--Safety regulations)

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BAKANOV, N.V.

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40 F '65. (MIRA 18:4)

ZHIZHNEVSKIY, V.; BAKANOV, P.

Practice in using expelling machinery for rendering fat.
Mias.ind.SSSR 27 no.1:16-18 '56. (MLRA 9:6)

1.Zhirovoy tsakh Moskovskogo myasokombinata.
(Oils and fats) (Moscow--Packing houses--Equipment and supplies)

YEVDOKIMOV, V.; BAKANOV, P.; LEMPERT, A.

Horizontal vacuum kettle for rendering fat in the "Progress"
Factory. Mias.ind.SSSR 27 no.1:23 '56. (MIRA 9:6)
(Oils and fats) (Vacuum apparatus)

ДЗЕКАСОВ, С. А.
DZHARYLGASOV, S., podpolkovnik meditsinskoy sluzhby; BAKANOY, R. A.
podpolkovnik

Semiautomatic jet injector. Voen-med. zhur. no.1:91-92 Ja '56.
(MLRA 10:5)
(MEDICAL INSTRUMENTS AND APPARATUS) (INJECTIONS)

BAKANOV, R.A.; BURYAKOV, Yu.F.; VAKHMISTROV, V.V.; VOLODIN, N.V.;
KUROCHKIN, V.D.; SAVELOV, V.P.; SUDZILOVSKIY, G.A.;
MARCHENKO, V.G., red.; BALASHOVA, M.V., red.-leksikograf;
BERDNIKOVA, N.D., red.-leksikograf; CHAPAYEVA, R.I.,
tekhn. red.

[Concise English-Russian and Russian-English military
dictionary] Kratkii anglo-russkii i russko-angliiskii voen-
nyi slovar'. Moskva, Voen.izd-vo M-va oborony SSSR, 1963.
560 p. (MIRA 16:4)

(Military art and science--Dictionaries)
(English language--Dictionaries--Russian)
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AZERNIKOV, V.; ARLAZOROV, M.; ARSKIY, F.; BAKANOV, S.; BELOUSOV, I.;
BILENKIN, D.; VAIEL', I.; VLADIMIROV, L.; GUSHCHEV, S.;
YELAGIN, V.; YERESHKO, F.; ZHURBINA, S.; KAZARNOVSKAYA, G.;
KALININ, Yu.; KELER, V.; KONOVALOV, B.; KREYNDLIN, Yu.;
LEBEDEV, L.; PODGORODNIKOV, M.; RABINOVICH, I.; REPIN, L.;
SMOLYAN, G.; TITARENKO, V.; TOPILINA, T.; FEDCHENKO, V.;
EYDEL'MAN, N.; ERME, A.; NAUMOV, F.; YAKOVLEV, N.;
MIKHAYLOV, K., nauchn. red.; LIVANOV, A., red.

[Little stories about the great cosmos] Malen'kie rasskazy o
bol'shom Kosmose. Izd.2., Moskva, Molodaia gvardia, 1964.
368 p. (MIRA 18:4)

124-58-9-10477D

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 150 (USSR)

AUTHOR: Bakanov, S. A.

TITLE: The Torsion on Round Shafts Exerted by Distributed Loadings
(Krucheniye uprugikh kruglykh valov raspredelennymi nagruzkami)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree
of Candidate of Technical Sciences, presented to the Mosk. aviats.
in-t (Moscow Institute of Aviation), Moscow, 1958

ASSOCIATION: Mosk. aviats. in-t (Moscow Institute of Aviation), Moscow

1. Shafts--Torsion 2. Shafts--Stresses

Card 1/1

SOV/147.-58-1-15/22

AUTHOR: Bakanov, S.A.

TITLE: The Torsion of Elastic Circular Shafts Under Distributed Loads (Krucheniye uprugikh kruglykh valov raspredelennymi nagruzkami)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Aviatsionnaya Tekhnika, 1958, Nr 1, pp 126 - 132 (USSR)

ABSTRACT: This paper shows that the actual distribution of stresses in shafts under distributed loads is significantly different from that obtained by considering the torsion of the shaft under two moments. The author considers first the torsion of a shaft under tangential forces distributed along the outside of the cylindrical surface. It is assumed that there are no displacements along either the radius or the axis. From the solution of this problem, there follows that of the circular shaft with a concentric circular hole. Similarly, the solution of the problems of a cylinder with a concentric circular hole with tangential forces applied on the inner surface follows from what has gone before. Finally, there is the problem of a shaft under two moments applied at the ends, with the same assumptions about the displacements as before. The results obtained for these problems are compared with those of

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SOV/147-58-1-15/22

The Torsion of Elastic Circular Shafts Under Distributed Loads

experiments on an aluminium alloy shaft with internal and external grooves. If the number of grooves is sufficiently large and their depth is very small in comparison with the diameter of the shaft, then to a known order of accuracy, it is possible to consider that the loading due to the grooves is the same as that of tangential forces distributed along the outside or the inside cylindrical surface. The comparison between the theoretical and experimental results, which is said to be very good, is shown for a solid shaft and for one with a concentric circular hole in two figures. There are 2 figures.

ASSOCIATION: Kafedra konstruktsii aviadvigateley, Moskovskiy aviatsionnyy institut (Chair of Aircraft Engine Construction, Moscow Aviation Institute)

SUBMITTED: November 5, 1957

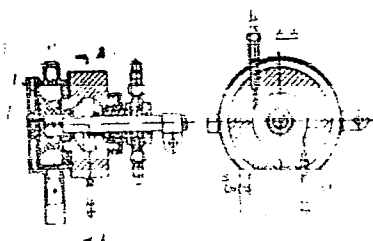
Card 2/2

1. Shafts--Stresses
2. Shafts--Mechanical properties
3. Shafts--Mathematical analysis

[illegible]

0-100, 0-100

ACCELERATION NAME: ACCELERATION



GENEL', S.V., kand. tekhn. nauk; BAKANOV, S.I., inzh.; KITAINA, L.B.,
nauchnyy red.; ALEKSEYEVSKAYA, Ye.A., red.

[New advanced technology and technological equipment in the
machinery industry] Novaia progressivnaia tekhnologiya i
tekhnologicheskoe oborudovanie v mashinostroyeni. Moskva,
1963. 55 p. (MIRA 17:8)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy in-
formatsii po avtomatizatsii i mashinostroyeniyu.

MURAVIN, Ya.G.; GENEL', S.V.; BAKANOV, S.I.; ROBSMAN, G.I.

[Lacquer coatings used in the food industry] Lakokrasochnye pokrytiia v pishchevoi promyshlennosti. Moskva, TSentr. in-t nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 55 p. (MIRA 17:3)

for review, S. P.

AUTHORS	Deryagin, B.V., <u>Bakanov, S.P.</u>	57-9-18/40
TITLE	The Theory of Gas Flow in a Porous Body in the Vicinity of Knudsen's Region. (Teoriya techeniya gaza v poristom tele v okolo-knudsenovskoy oblasti.)	
PERIODICAL	Zhurnal Tekhn. Fiz., 1957, Vol.27, Nr 9, pp.2056-2070 (USSR)	
ABSTRACT	A highly porous body can, in the case of the lack of any porous structure and any regularity with respect to the arrangement of particles, be looked upon as a system of chaotically distributed spheres which are rigidly fixed in space. For a gas flow through such a system the method for the determination of the coefficient of the reciprocal diffusion of two gases, which was developed by S.Chapman and I.G. Cowling (The Mathematical Theory of Non-Uniform Gases, Cambridge, 1939) can be applied, in which case the spherical system is considered to be a gas with molecules of infinitely large mass. A formula for the gas filtration coefficient through the porous body is derived. It is shown that, with any approximation with the exception of that to zero, the filtration coefficient decreases with rising pressure. In consideration	

CARD 1/3

57-9-18/40

The Theory of Gas Flow in a Porous Body in the Vicinity of Knudsen's Region.

of the fact that the filtration coefficient at high pressure increases with rising pressure according to Poiseuille's law, a curve with a minimum is obtained. In this way it appears possible to explain the minimum in the gas-consumption-pressure curve in the case of the experiments carried out by Knudsen and W. Gaede (Ann. d. Phys., 41, 289, 1913) (M. Knudsen, Ann. d. Phys. 28, 75, 1909). The curves for the filtration coefficients obtained here differ only little within the domain concerned from those obtained on the basis of a much less accurate but physically clearer considerations. The results obtained here are applicable in the case of the condition,

$$\frac{\lambda_0}{\lambda_g} \ll \frac{\delta}{1 - \delta}, \text{ where } \delta \text{ denotes the porosity}$$

coefficient, λ_0 - the average length of path of the

CARD 2/3

57-9-18/40

The Theory of Gas Flow in a Porous Body in the Vicinity of Knudsen's Region.

molecules between collisions with the wall, λ_g - the length of path of the gas molecules.

There are 2 figures and 3 Slavic references.

ASSOCIATION: Institute for Physical Chemistry AN USSR,
Moscow.
(Institut fizicheskoy khimii AN SSSR, Moskva.)
SUBMITTED: March 15, 1957.
AVAILABLE: Library of Congress.

CARD 3/3

BAKANOV, S.P.

57-27-7-37/40

AUTHOR: Bakanov, S. P.

TITLE: Concerning the Problem of the Molecular Gas Flow Through a Porous Wall (K voprosu o molekulyarnom techenii gaza cherez poristuyu peregorodku).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 27, Nr 7, pp. 1619-1621 (USSR)

ABSTRACT: The steady Knudsenian gas-flow through a porous medium under the influence of a small concentration-gradient grad n is investigated (n - number of molecules in the unit of volume of the porous medium). The function of the molecule-velocity-distribution $f^{(1)}(v)$ which little differs from Maxwell's $f^{(0)}(v)$ is found by means of solution of the well-known kinetic equation by Boltzmann. The integrating is extended to all possible quantities and directions v' . A law of interaction of the molecules with the pore-walls is investigated in which the function of the molecular distribution according to velocities does not change. I. e. every molecule rebounds with the same velocity that it possessed before the impact against the wall. A mirror- and a diffusion-rebounding with

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Concerning the Problem of the Molecular Gas Flow Through
a Porous Wall

57-27-7-37/40

retention of the velocity are special cases of such a law. The coefficient of filtration is determined for each of these cases. The formula derived here permits immediately to calculate the coefficient of the steady gas-filtration for any law of interaction of the molecules with the walls, with retention of the velocity. For this purpose only $\cos \gamma$ ("dispersion"-angle of the molecule) has to be determined. There are 3 Soviet references.

ASSOCIATION: Institute of Physical Chemistry AS USSR, Moscow
(Institut fizicheskoy khimii AN SSSR, Moskva).

SUBMITTED: February 23, 1957

AVAILABLE: Library of Congress

1. Molecular gas flow-Mathematical analysis

Card 2/2

BAKANOV, S.P.

MENZEL, Donald H., red.; KAZARNOVSKIY, M.V. [translator]; TIKHOMIROV, F.A. [translator]; ARNOL'D, N.A. [translator]; PETRUKHIN, V.I. [translator]; MATSONASHVILI, B.N. [translator]; AKSENOV, S.I. [translator]; BAKANOV, S.P. [translator]; SHAPIRO, I.S., red.; ADIROVICH, E.I., red.; MEDVEDEV, Yu.T., red.; NAKHIMSON, I.G., red.; TELESNIN, N.L., red.; BELEVA, M.A., tekhn.red.

[Fundamental formulas of physics. Translated from the English]
Osnovnye formuly fiziki. Moskva, Izd-vo inostr. lit-ry, 1957.
657 p. (MIRA 11:5)

(Mathematical physics)

BAKANOV, S. P.

20-2-19/62

AUTHORS: Deryagin, B.V., Corresponding Member AN USSR, and Bakanov, S.P.

TITLE: The Theory of the Flow of Gas in a Porous Body Near Knudsen's Domain. The Pseudomolecular Flow (Teoriya techeniya gaza v poristom tele v okolo knudsenovskoy oblasti. Psevdomolekulyarnyy potok)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 2, pp. 267 - 270 (USSR)

ABSTRACT: Two types of the flow of a gas in a porous body (or in individual capillaries) are known: the molecular flow and the viscous flow. In the case of the molecular flow the relation $\alpha =$ (number of the collision of the molecules among each other / number of the collisions onto the walls of the pores) is small. In the case of the viscous flow applies $\alpha \gg 1$ and then a velocity distribution develops in the pores. According to the general opinion the molecular flow with increasing gas pressure p and consequently also with increasing α gradually changes into the viscous flow, where the gas current Q monotonously (in the first approximation linearly) increases. This scheme is contradicted by the tests with round and especially with slit-shaped capillaries where a minimum of the de-

Card 1/3

20-2-19/62

The Theory of the Flow of Gas in a Porous Body Near Knudsen's Domain. The Pseudomolecular Flow

pendence $Q = Q(p)$ was noticed. The teoretical explanation of this minimum failed. In the case of the highly-porous bodies for which $1 - \delta \ll 1$ applies (δ - porosity) the body is characterized by two essentially different bodies: by the average inside width of the pores λ_c and by the average dimension D of the particles. In this connection apply $\lambda_c = 4V/S$, and $D = 4V_0/S$, and S - signifies the surface of the walls, V - the volume of the particles and V_0 - the volume of the pores. Further $\lambda_c = \delta D/(1 - \delta)$ is found. Apparently $\alpha = \lambda_c / \lambda_g$ is valid, where λ_g signifies the ordinary range of the gas molecules at a given pressure. In the case of $1 - \delta \ll 1$ there exists a domain of the gas pressure in which the two conditions $\lambda_g \ll \lambda_c$ ($\alpha \gg 1$) and $D \ll \lambda_g$ simultaneously apply. The authors investigate the flow of the gas in the domain. The calculation is followed step by step. The similarity of the filtration coefficients found on this occasion for Knudsen's and for the pseudomolecular flow is a very unexpected and important result due to the essentially different mechanisms of this flow. There are 1 figure, 8 references, 3 of which are Slavic.

Card 2/3

20-2-19/62

The Theory of the Flow of Gas in a Porous Body Near Knudsen's Domain. The Pseudomolecular Flow

ASSOCIATION: Institute for Physical Chemistry AN USSR
(Institut fizicheskoy khimii Akademii nauk SSSR)

SUBMITTED: March 1, 1957

AVAILABLE: Library of Congress

Card 3/3

BAKANOV, S. P.

20-6-10/47

AUTHORS: Deryagin, B. V., Corresponding Member of the AN USSR,
Bakanov, S. P.,

TITLE: The Theory of the Motion of Small Aerosol Particles in a Diffusion Field (Teoriya dvizheniya malykh aerazol'nykh chastits v pole diffuzii)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 6, pp. 959-962 (USSR)

ABSTRACT: The problem arises whether a creeping and a "phoresis" exist which are caused by the concentration gradient. This would have to be taken into consideration in the construction of a theory for the behavior of aerosol particles in diffusion fields. But the strict gaskinetic calculation of such a "diffusion phoresis" is complicated by the fact that the distribution of the velocities of the gas molecules in a layer of the thickness depends on the particle's distance from the surface. But the problem is reduced in the case of $r \ll \lambda_1, \lambda_2$ when the distribution of the velocities of molecules impinging upon the surface of the particle is not disturbed by the existence of the particle. In this connection λ_1, λ_2 signify the lengths of path of the molecules. The authors here examine a mixture of the gases with the moles m_1 and m_2 at small gradients of the partial concentrations n_1 and n_2 . In this connection still applies $\text{grad}(n_1+n_2) = \text{grad } p/kT = 0$. The kinetic equa-

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20-6-10/47

The Theory of the Motion of Small Aerosol Particles in a Diffusion Field.

tions and an ansatz for their solution are given. The unknown functions are developed in series. The course of the calculation (by the method of successive approximation is followed step for step. The problem of the determination of the distribution functions is in any approximation reduced to the calculation of certain integrals. The distribution functions found here in first approximation described the field of the mutual diffusion of two gases. An aerosol particle in the diffusion field beside the Brownian motion also has an ordered velocity $\vec{u}$ at which the momentum transferred upon the particle due to the molecule collisions is equal to zero. The authors here investigate small values of $\text{grad } n_1$ and disregard the terms proportional to u^2 and $u \text{ grad } n_1$. The numerical calculation for the mixture air-water vapor ($p=1 \text{ atm}$, $T=293^\circ\text{K}$) yields the velocities (with regard to the wall) $u'=1,47 \cdot 10^{-2}/l \text{ (cm/sec)}$, where l signifies that distance in centimeters on which the relative moistness decreases from 100% to zero. Finally something is said on a phenomenon in a highly porous body in which the pseudomolecular type of the current is possible. There are 4 references, 3 of which are Slavic.

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The Theory of the Motion of Small Aerosol Particles in a Diffusion Field.

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AUTHOR: Bakanov, S.P.

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1. Gas flow--Theory 2. Separators--Performance 3. Pressure
--Applications

Card 1/1